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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/848,280	05/04/2001	Hironori Fujioka	206202US3DIV	1005

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EXAMINER	
KASTLER, SCOTT R	
ART UNIT	**PAPER NUMBER**
1742	7

DATE MAILED: 08/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

AS7

Office Action Summary	Applicati n No. 09/848,280	Applicant(s) FUJIOKA ET AL.	
	Examiner Scott Kastler	Art Unit 1742	

-- The MAILING DATE of this communication app ars on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 July 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *4-8* is/are pending in the application.

4a) Of the above claim(s) *6-8* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *4 and 5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 May 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Election/Restrictions

Applicant's election with traverse of claims 4 and 5 (Group I) in Paper No. 6 is acknowledged. The traversal is on the ground(s) that processing of other materials is not a materially different process from reducing iron oxides. This is not found persuasive because processing of copper or other non-ferrous materials are fundamentally different processes from iron ore processes, therefore the apparatus of claims 6-8 can be used in other materially different processes than iron oxide reducing and the restriction is therefore proper.

The requirement is still deemed proper and is therefore made FINAL.

Claims 6-8 withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 6.

Drawings

Figures 15-27B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The abstract of the disclosure is objected to because the abstract should be in the form of a single paragraph of no more than 150 words. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 4 is rejected under 35 U.S.C. 102(b) as being anticipated by any of the admitted prior art of the instant disclosure, Ando et al, Rierson, or Babcock et al. Each of the admitted prior art of the instant disclosure, Ando et al, Rierson, or Babcock et al teach a method of producing reduced iron pellets from raw material pellets comprising iron oxide and carbonaceous materials (page 1 of the specification in the admitted prior art of the instant disclosure, col. 5 lines 43-49 of Ando et al, col. 1 of Rierson, or col. 1 of Babcock et al for example), where the process includes reducing the pellets, and cooling the pellets in a rotary cooling chamber which applied rolling to the reduced pellets (the embodiment of figure 17 of the specification in the admitted prior art of the instant disclosure, the embodiment of figure 5 of Ando et al, the embodiment of figure 1 of Rierson, or the embodiment of figure 1 of Babcock et al), thereby showing all aspects of the above claims since the pellets in all of the above references are inserted into the cooling chamber at temperatures above or within the range of 800 to 1200 degrees C, and cooled to below this range; meaning that for some period of time the reduced pellets are rolled within the instantly recited temperature range.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Babcock et al. As applied to claim 4 above, Babcock et al shows all aspects of the above claims except the step of specifically maintaining the reduced pellets within the temperature range of 800 and 1200 degrees C while imparting rolling to the pellets, although as expressed in Babcock et al at col. 9 lines 25 to 40 for example, the pellets are subjected to rolling in the cooling chamber and are passed through the temperature range from 1970 degrees F (1076.66 degrees C) to 1100 degrees F (593.33 degrees C) at a rate of less than 200 degrees F (93 degrees C) per minute, meaning that the reduced iron pellets are subjected to rolling within the temperature range of 1076.66 degrees C and 800 degrees C for at least 2.97 minutes, thereby encompassing the time range of 3 to 20 minutes instantly recited. The subject matter as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because it has been well settled that where a claimed range r falls within a broad range recited by the applied prior art, a *prima facie* case of obviousness exists. See MPEP 2144.05 I, and *In re Wertheim*, 191 USPQ 90.

Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over any of the admitted prior art of the instant disclosure, Ando et al and Rierson, as applied to claim 4 above, in view of Babcock et al. As applied to claim 4 above, each of the admitted prior art of the instant disclosure, Ando et al and Rierson show all aspects of the above claims except the requirement that the reduced pellets are rolled at a temperature of between 800 and 1200 degrees C for between 3 and 20 minutes. As applied to claim 5 above, Babcock et al teaches that it is known in the iron oxide pellet reducing arts to roll reduced iron pellets within the instantly recited temperature and time ranges in order to improve the briquetting properties of the reduced iron pellets (see col. 3 lines 20-35 of Babcock et al for example). Because improved briquetting properties would also be desirable in each of the admitted prior art of the instant disclosure, Ando et al, and Rierson, motivation to employ the cooling rates recited by Babcock et al in the processes described by any of the admitted prior art of the instant disclosure, Ando et al, or Rierson, would have been a modification obvious to one of ordinary skill in the art at the time the invention was made.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Kastler whose telephone number is (703) 308-2506. The examiner can normally be reached on Monday through Friday.

The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

Scott Kastler
Primary Examiner
Art Unit 1742

sk
August 1, 2002